

MODIS Technical Team Meeting
Thursday, August 29, 2002
Building 33, Room E 108

Vince Salomonson chaired the meeting. In attendance were Shaida Johnston, Jack Xiong, Bill Barnes, Skip Reber, Dorothy Hall, Wayne Esaias, Chris Justice, Steve Kempler, and Ed Masuoka, with Yolanda Harvey taking the minutes.

1.0 Upcoming Events

- Remote Sensing of the Earth's Environment from Terra, a Workshop at the International Summer School on Atmospheric and Oceanic Science, August 25-30, 2002, L'Aquila, Italy
- 34th COSPAR Scientific Assembly, October 10-19, 2002, Houston, TX (abstract deadline past)
- MODIS Outreach Workshop on Land Surface Radiation and Snow and Ice Products, October 21-22, 2002, Boston, MA

2.0 Meeting Minutes

2.1 General Discussion

Salomonson showed a draft of the acknowledgements for the MODIS Multidisciplinary Data Set CD. He announced a problem with the snow map on the CD, and said that Vermote thinks that there may have been a problem with the cloud mask. Johnston suggested this occurrence argues for setting up an improved and careful QA process before producing CD's, and Salomonson agreed.

Salomonson indicated that discussions are occurring concerning more clarification and detail regarding the stages of validation for MODIS products. These are being discussed with the Discipline leaders along with the process for introducing them into the product status web pages. Various additional suggestions were offered and discussed. Further progress will be reported at the next Technical Team meeting.

Salomonson passed out a draft of the report to the MODIS Data Processing Review Team describing the results of their review and recommendations from December 2001. Responses are due by September 10.

2.2 Instrument

2.2.1 Aqua MODIS

Barnes reported that two commands were lost last night during an SDSM test. The commands were in the middle of a sequence of commands, and they discovered from the commands stored in the spacecraft that the two lost commands were not received. Johnston asked if it was the result of human error, and Barnes replied that it was not. The commands are in a sequence, and to get the commands to go through they had to send the sequence twice. He speculated that it may be a problem in the instrument, but he's not sure because there isn't enough telemetry to analyze. He said that up until just recently,

they only lost one command out of every thousand, but now the losses are about twenty days apart.

Barnes said that an issue came up at the August 28th PIP meeting about the date to release data from Aqua MODIS as a beta product. They suggested August 1st and forward. The data will then be validated when they get enough L2 data. Salomonson asked whether they could declare the L1B to be provisional after August 1. It tentatively was decided that the Level 1B products will be declared of provisional quality beginning Aug. 1, 2002. Level 1A products would be provisional as of Aqua first light, June 24, 2002.

2.2.2 Terra MODIS

Barnes reported no new issues.

2.3 DAAC

Kempler reported that Chris Lynnes and Bruce Vollmer at the DAAC are trying to work out the incorporation of Terra WHOM into the EDG. Salomonson said that he showed a number of the different browse capabilities available at the MODIS Discipline sites to Mike Moore. Salomonson said that he would like to see something like a cursor to outline the geographic areas of interest and a “shopping basket” feature within the solution. Kempler said that this issue has come up with AIRS because they provide the software. He would like to do this with MODIS products. He has noticed that browses are being produced at each site, and he thought that they could bring those browse products over to the DAAC. He continued that there could be a WHOM solution by having it point to the various sites, so there are possibilities. Esaias said that it would be useful if they could have a utility within a SIPs browse to return the granule ID # numbers that the DAAC could take orders from. Kempler said that the solution wouldn't be that easy, but he's willing to explore it. Salomonson said that he was really impressed with the DigitalGlobe page (www.digitalglobe.com) because it has an easy and intuitive ordering interface. The idea is to get a solution with which a high school teacher or state resource manager, etc., would be comfortable. He said that the key people with whom to work this out are going to be Moore and Kempler.

2.4 MODAPS

Masuoka reported that they delivered the L1B change to the DAAC. There are still many PGEs that the Science Team needs to deliver to SDST for the October Atmosphere and Land Collection 4 reprocessing campaign. Further, there will be an Oceans delivery around September 4th, which is needed to before MODAPS can process the period from March through June 2000. Masuoka asked Esaias about the missing radcorr files, and Esaias said that they can be added later, and they should be available by the time they're needed. Masuoka said that there are a number of changes to 25 PGEs necessary to go from the ISIN to SIN grid. Justice said that while discussing the processing of Collection 4 at the Land portion of the Science Team Meeting, a number of people expressed the wish to push the date back because they want to do more comparisons. Masuoka said that if the GES DAAC reprocessing of Collection 4 Level 1 products and MODAPS reprocessing of Level 2 and Level 3 Atmosphere products start on October 15, the Land reprocessing must start by November 29, 2002, which is the date that MODAPS will start

running out of disk space to hold Level 1 products. After that it may be necessary to drop a day from the processing for each day that passes until the Land processing is ready to begin. Since the quality of the Level 1B is worse at the start of 2000, MODAPS would like to begin there so that the impact to Land would be reduced if MODAPS has to drop a day of products for each day beyond 11/29/02 that the Land reprocessing is delayed. Justice would like to start the processing with November 2000 to speed up the inter-annual comparisons of a 12-month period of “good” data.

Xiong said that MCST is concerned about having to deliver the Ocean LUT for the M1 errors. Johnston asked whether it would only affect forward processing, and Xiong said yes. Some data will need to be reprocessed because they now have 7 months of data on the errors. Esaias said that the LUT will go into Ocean Collection 5 forward processing.

2.5 Scheduling

Johnston raised the issue of the timeline of product activities based on the DAAC schedule. Right now all of the Aqua MODIS data are in collection 3, are beta quality, and are hidden from the public. She asked when they want to make the L1 products visible on the EDG, WHOM, etc. for ordering. She noted that the general consensus is to show the Level 1B data from August 1st and forward, and that earlier dates of the Level 1B are put into Collection 199. This is the approach for each product or ESDT that gets declared provisional. This will create a significant amount of work for the DAAC, and she said that Gary Alcott has proposed that all dates to be put in Collection 199 be marked DFA (Delete From Archive) and the GDAAC will gradually move them. These data will only be visible to the science team and can be moved to Collection 199 over a longer period of time than if they were visible to the public. Allowing the DAAC to spread this work of moving granules out over a longer period of time will reduce the impact on their staff. Salomonson asked if the difference of 10% in radiance levels between the Terra and Aqua MODIS instruments is still there, and Xiong confirmed that it is. Johnston reported that Alcott is asking the disciplines to identify which of their products are most likely to be ready and when, because he needs plan in advance. Salomonson said that the next STM will be in January when people get start getting provisional data. Johnston noted that that will work with the timeline, where in the November to March timeframe people will be starting to identify provisional products. She said that the DAAC needs to be informed of when they can expect certain things to be happening, perhaps based on what happened with Terra. Esaias asked what would happen if the L2 products are not provisional by March, and Johnston said that we will just have to change the timeline. She asked that each discipline identify at least one sample beta product that will be ready soon. Sample products will be put on an FTP site for public access. Masuoka noted that the DAAC should be in charge of setting up the ftp site because people know to go to the DAAC for samples.

Salomonson said that the problem with Band 6 on the Aqua MODIS will affect some products, for example, the snow products. Johnston suggested looking at dropping unused products from the list during the next few months while assessing Aqua products. Masuoka said that they may be able to make a case for archiving new products in place of

older ones that aren't deemed useful. Johnston said that we don't have to make the decision now.

Johnston said that for Aqua reprocessing, she needs to know what the criteria is for when they have to reprocess data. She thought that the soonest would be at the end of Land processing in August 2003, and Masuoka said that that sounds about right. Johnston said that the issue is that this timeframe will affect Oceans processing, who may have to move 3 months later. Precise dates don't really matter, but in general they can't start reprocessing until they finish Land processing. Masuoka said that in terms of the ingest rate, processing Ocean and Land products at the same time would optimize how many products can be put into the DAACs, since the Land and Ocean DAACs are archived at separate DAACs. However, this would require a higher level of Level 1 processing/distribution from the GES DAAC than is in their requirements since Ocean and Land would need Level 1 from separate dates and because Aqua reprocessing is separate from Terra. Johnston said that she doesn't need answers now, but she does want to know what the limits are so that we can revisit this later.

Johnston asked what the criteria are for reprocessing once everything reaches provisional status, and Masuoka replied that they reprocess when the algorithms are ready to produce validated products. Esaias said that on the next reprocessing they don't have to reprocess all of the products, but rather they could establish priorities. If the ingest is limited, it might make sense to send only high priority products back to the DAAC for archive providing the processing of Level 1 products is not a bottleneck. Kempner asked what the MODIS position is for processing Level 1 data in MODAPS. Salomonson responded by saying that he does not feel it is within MODAPS requirements to do Level 1 processing and he does not feel MODAPS needs to take on another job that would strain its resources. Salomonson prefers that MODAPS not perform Level 1 processing (based on the above rationale). Some products are going to be validated stage 1 or 2 well before others. He asked what the purpose is of Collection 4; would it change the version and not the collection? Johnston said that depends of whether we consider Collection 4 to be validated, which she is not sure about. Esaias said that it used to be synonymous with consistent processing. Justice said that from a Land perspective, Collection 4 is a major improvement in the algorithm or the products are stable. Esaias said that they consider it to be for new major but somewhat consistent products. Johnston said that she did not expect an answer now, but wanted people to be thinking about this.

2.6 Land

Justice said that he had a live interview from 6 am to 8 am on NASA TV, and that CNN picked it up. Goddard PAO was the driving force. It wasn't picked up on national TV, but it may be on local stations. He said that he mentioned MODIS Rapid Response and that the global fire product is getting a lot of interest. They have a booth in Johannesburg and are trying to get important people to look at their products, such as Colin Powell and the South African Prime Minister.

3.0 Action Items

3.1 New Action Items

None.

3.2 Old Action Items

3.2.1 Technical team to discuss further the issue of predicted ephemeris data and how to improve it.

Status: Open.

Ed Masuoka and Robert Wolfe plan to meet with the Terra Flight Operations Team to see if they can run definitive ephemeris 2-4 times per day. The context for this issue to provide better geolocation information for things like fire front tracking and similar issues.

3.2.2 The procedure for releasing Aqua MODIS products needs to be further refined via Discipline discussions and coordination with the Science Team leader, et al.

Status: Closed.